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## IOT FOR ROBOTICS AND MECHATRONICS (S) ENGINEERS



















IoT, robotics and mechatronics have become so intertwined that their intersection is sometimes collectively referred to as Internet of Robotic Things (IoRT). It borrows from traditionally robotic areas like precision movement and control and adds on wireless communication and edge computing to achieve complex cognitive capabilities. With the robot connected to the cloud, significant AI computing capabilities are available at its disposal. Robots and drones can fuse imaging data with overlays from multiple inertial sensors to operate hydraulics and drivers at near real time. Boston Dynamics has been developing humanoid robotic platform Atlas,

with the ability to learn hum-like agility. Starting with basic balancing of 24 hydraulic joints, Atlas was able to learn parkour backflips within a matter of months.

Robots may not always act in isolation, specially in production shop floors. When fleets of automated guided vehicles (AGVs) work towards a common goal then IoT enables the creation of a distributed coordination plane, interfacing with the ERP software. For example, e-commerce giant Flipkart, recently introduced a fleet of AGVs in its central sorting facility where they move packages based on the final destination pincode, improving the sorting task by an order of magnitude.



Capsule Labs is founded by IoT industry veterans and offers foundational IoT projects to develop a better understanding of IoT solution. With our actuator kit you can create projects fine grain control and movement.